PTO/SB/08A (10-01)
Approved at through 10/31/2002. OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, to persons are

Substitute for form 1449A/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet of 11

e required togethered to a collection of information unless it contains a valid Olivia control number					
TRADEMA	Complete if Known	RIB			
Application Number	10/067,995				
Filing Date	2/8/02	,			
First Named Inventor	Vincent Fischetti				
Group Art Unit	1651	CZ-01			
Examiner Name	PRATS, FRANCISCO C	HANDLER			
Attorney Docket Number					

UN 12 2003

CENTER 1600/2800

U.S. PATENT DOCUMENTS									
Examiner	Cite	Document Number	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevan				
	No.1	Number - Kind Code <sup>2</sup> (if known)	MM-DD-YYYY	oned boddment	Passages or Relevant Figures Appear				
	1 1	US- 6056954	05/02/00	Fischetti, et al.					
O i	2	US- 5997862	12/07/99	Fischetti, et al.					
	3	US- 5985271	11/16/99	Fischetti, et al.					
	4	US- 5688501	11/18/97	Merril, et al.					
	5	US- 4742981	05/10/88	Converse					
	6	US- 2019789	11/05/35	Mahannah					
	7	US- 2763931	09/25/56	McMillan					
	8	US- 5479732	01/02/96	Burtch, et al.					
	9	US- 3465445	09/09/69	Fisher	-				
	10	US- 2315260	03/30/43	Lancaster					
	11	US- 5604109	02/18/97	Fischetti, et al.					
	12	US- 5260292	11/09/93	Robinson, et al.					
	13	US- 4957686	09/18/90	Norris					
	14	US- 6017528	01/25/00	Fischetti, et al.					
	15	US- 6132970	10/17/00	Stemmer					
	16	US- 3852424	12/03/74	Gaeumann, et al.					
	17	US- 6264945	07/24/01	Fischetti, et al.					
1/	18	US- 6254866	07/03/01	Fischetti, et al.					
4/	19	US- 6248324	06/19/01	Fischetti, et al.					
V	20	US- 6238661	05/29/01	Fischetti, et al.					

<b>-</b>		Foreign Patent Document	,	Name of Patentee or	Pages, Columns, Lines,	
Examiner Initials*	Cite No. <sup>1</sup>	Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> ( <i>if known</i> )	Publication Date MM-DD-YYYY	Applicant of Cited Document	Where Relevant Passages or Relevant Figures Appear	Т <sup>6</sup>
	21	EP-0510907 A 2	10/28/92	Agricultural & Food Res.		
1	22	WO-9702351	01/23/97	CIBA Geigy AG, et al.		
	23	WO-9607329	03/14/96	Univ. Maryland		
	24	WO-9904809	02/04/99	Ambi, Inc.		
	25	FR-2357246	02/03/78	Martinez		
	26	WO-9531562	11/23/95	Quest Inernational B.V.		
	27	EP-587541 A1	03/16/94	Tecnogen ScpA		

Examiner Signature	LILLE	Date Considered	9-4-03

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at <u>www.uspto.gov</u> or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

Attorney Docket Number

Substitute for form 1449A/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet

JUN  Under the Paperwork Reduction Act of 1995, no persons a	I FO Data at and Took	PTO/SB/08A (10-01) proved se through 10/31/2002. OMB 0651-0031 demark Office: U.S. DEPARTMENT OF COMMERCE of information unless it contains a valid OMB control number.	
for form 1449A/PTO	PADEMARY	Complete if Known	5)
	Application Number	10/067,995	u
RMATION DISCLOSURE	Filing Date	2/8/02	
EMENT BY APPLICANT	First Named Inventor	Vincent Fischetti	
	Group Art Unit	1651	
(use as many sheets as necessary)	Examiner Name	PRATS, FRANCISCO CHANDLER	H

H CENTER 1600/2900

JUN 12 2003

			U.S. PATENT	OCUMENTS	
Funminas	Cite	Document Number	Publication Date	Name of Patentee or Applicant of	Pages, Columns, Lines, Where Relevant
Examiner Initials	No.1	Number - Kind Code² (if known)	MM-DD-YYYY	Cited Document	Passages or Relevant Figures Appear
\$CA!	28	US- 6056955	05/02/00	Fischetti, et al.	
1	29	US- 5882631	03/16/99	Suga, et al.	
	30	US- 5741487	04/21/98	Asai, et al.	
	31	US- 6113887	09/05/00	Mori, et al.	
	32	US- 4122158	10/24/78	Schmitt	
	33	US- 3983209	09/28/76	Schmitt	
	34	US- 4885163	12/05/89	Shaar, et al.	
	35	US- 6177554	01/23/01	Woo, et al.	
	36	US- 6187757	√02/13/01	Clackson, et al.	
	37	US- 5162226	11/10/92	Beachey, et al.	
	38	US- 6335012	01/01/02	Fischetti, et al.	
	39	US- 6326002	12/04/01	Fischetti, et al.	
	40	US- 6277399	08/21/01	Fischetti, et al.	
	41	US- 4062941	12/13/77	Davies	
	42	US- 5571667	11/05/96	Chu, et al.	
1	43	US- 5514602	05/07/96	Brooks Jr, et al.	
1	44	US- 5500350	03/19/96	Baker, et al.	
	45	US- 5384265	01/24/95	Kidwell, et al.	
1/	46	US- 4361537	11/30/82	Deutsch, et al.	
-	47	US- 5120643	06/09/92	Ching, et al.	

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document  Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> ( <i>if known</i> )	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>		
Br	48	WO-9323544	11/25/93	The University Court of the University of Glasgow		·		
BA	49	EP-0293249 A1	11/30/88	Amrad Corporation Limited				
KO	50	EP-0646646 A2	04/05/95	Bristol-Myers Squibb Company				
GR.	51	EP-0359873 A1	03/28/90	The Public Health Research Inst. of the City of New York				

Examiner Signature	2	puto	Date Considered	9-4-03

PTO/SB/08A (10-01) ose through 10/31/2002. OMB 0651-0031 Approved

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Complete if Known

Substitute for form 1449A/PTO

Ō,

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

	Application Number	10/067,995		
	Filing Date	2/8/02		
	First Named Inventor	Vincent Fischetti		
	Group Art Unit	1651		
	Examiner Name	PRATS, FRANCISCO CHANDL		

11 Sheet Attorney Docket Number

U.S. PATENT DOCUMENTS									
Examiner Cite	Cite	Document Number	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relation				
Initials 1	No.¹	Number - Kind Code <sup>2</sup> (if known)	MM-DD-YYYY		Passages or Relevant Figures Appear				
$\Omega$	52	US-4948726	08/14/90	Longoria					
	53	US- 4459361	07/10/84	Gefter	J				
	54	US- 4552839	11/12/85	Gould, et al.					
	55	US- 4313734	02/02/82	Leuvering	EROM O				
	56	US- 4847199	07/11/89	Snyder, et al.	TECH C				
	57	US- 4497900	02/05/85	Abram, et al.					
	58	US- 4707543	11/17/87	Zollinger, et al.					
	59	US- 5763251	06/09/98	Gasson					
	60	US- 6159688	12/12/00	Borchert, et al.					
	61	US- 4784948	11/15/88	Scott, et al.					
	62	US- 5760026	06/02/98	Blackburn, et al.					
	63	US- 5602040	02/11/97	May, et al.					
	64	US- 4521252	06/04/85	Miyake, et al.					
	65	US- 4355022	10/19/82	Rabussay					
	66	US- 4115546	09/19/78	Vidra, et al.					
	67	US- 4116327	09/26/78	Eglinton, et al.					
	68	US- 3929994	12/30/75	Hirsch, et al.					
1,	69	US- 6083684	07/04/00	Gasson					
1/	70	US- 5360617	11/01/94	Gasson					
<b>V</b>	71	US- 5079174	01/07/92	Buck, et al.					

	FOREIGN PATENT DOCUMENTS								
Examiner   Cite   No.1	Cite	Name of Patentee or Applicant of Cited	Pages, Columns, Lines, Where Relevant						
	Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> ( <i>if known</i> )	Date MM-DD-YYYY	Document						
					-				
						.=			

Examiner Signature	9		V N	lado	Date Considered	9.4-03

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08A (10-01)

Approved Se through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are re Substitute for form 1449A/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet of 11

required to respond to a collection of	of information unless it contains a valid OMB control n	umbe
	Complete if Known	
Application Number	10/067,995	$\overline{}$
Filing Date	2/8/02	$\mathcal{I}$
First Named Inventor	Vincent Fischetti	$I_{-}$
Group Art Unit	1651	2
Examiner Name	PRATS, FRANCISCO CHANDL	EK
Attorney Docket Number		

			U.S. PATENT [	DOCUMENTS		
Evaminar	kaminer Cite	Document Number	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant	
miles h	No.1	Number - Kind Code <sup>2</sup> (if known)	MM-DD-YYYY	Cited boddment	Passages or Relevant Figures Appear RECFIVE	:Ľ
dky x	72	US- 5604110	02/18/97	Baker, et al.		• •
[ <u>0</u> _	73	US- 5294369	03/15/94	Shigekawa, et al.		
	74	US- 5372931	12/13/94	Friedman, et al.	JUN 1:2 2003	ł
	75	US- 4933185	06/12/90	Wheatley, et al.		,
	76	US- 5108758	04/28/92	Allwood, et al.		
	77	US- 4713249	12/15/87	Schroder	TECH CENTER 1600/2	<b>290</b> 0
	78	US- 4812445	03/14/89	Eden, et al.		
	79	US- 3622677	11/23/71	Short, et al.		
	80	US- 4369308	01/18/83	Trubiano		
4	81	US- 5393658	02/28/95	Olsen		
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				

	FOREIGN PATENT DOCUMENTS						
F		Foreign Patent Document	Publication	Name of Patentee or	Pages, Columns, Lines, Where Relevant		
Examiner Initials*	Cite No. <sup>1</sup>	Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> (if known)	Date MM-DD-YYYY	Date Passages or R	Passages or Relevant Figures Appear	T <sup>6</sup>	
	<del> </del>						
	-		1				

	1_1			
Examiner Signature	Eld 18th	Date Considered	9-4-03	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08B(10-01)

Approved for use through 10/31/2002. OMB 0651-0031 U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction 41995, no pension are required to respond to a collection of information unless it contains a valid OMB control number

RECEIVED Substitute for form 1449A/PTO Complete if Known **Application Number** 10/067,995 INFORMATION DISCLOSURE Filing Date 2/8/02 1-2 2003 STATEMENT BY APPLICANT First Named Inventor Vincent Fischetti 1651 Group Art Unit PRATS, FRANCISCO CHANGE GIRCENTER 1600/2900 (use as many sheets as necessary) **Examiner Name** 11 Sheet of Attorney Docket Number

		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T 2
60g	82	KH Nasibulini et al; RU-2103991; Composition for treating streptococcal diseases - comprises purified concentrate of streptococcal bacteriophage, solution of quinsosol, dry lanolin, albumin and vegetable oil; XP-002141110	
<b>del</b>	83	LD Demidova et al; RU2064299; Cattle mastitis therapeutic preparation - comprises lyso: amidase of specific lytic activity and mono- and di-basic sodium phosphate(s); XP-002141111	

Examiner Signature	RN	lat	Date Considered	9-4-03

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup> Unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08B(10-01)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Application Act of 1385 no persons are required to respond to a collection of information unless it contains a valid OMB control number Under the Paperwi

Attorney Docket Number

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

BECEIVED Complete if Known **Application Number** 10/067,995 2/8/02 Filing Date JUN 1-2 2003 First Named Inventor Vincent Fischetti Group Art Unit 1651 PRATS, FRANCISCO CHANDITER 1600/2900 Examiner Name

(use as many sheets as necessary)

Sheet of 11

Substitute for form 1449A/PTO

OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS					
Examiner Cite					
Fer	84	BABENKO et al. Enzymatic lysis of staphylococci in relation to their species and strain properties, 1990, Database Medline Online, US National Library of Medicine, Bethesda, MD, US, Database Accession No. 90297672 XP002170795, abstract only			
	85	BARTELL, et al., Origin of polysaccharide depolymerase associated with bacteriophage infection, Journal of Virology, March 1969, pp. 290-296, Vol. 3, No. 3			
	86	BEHNKE, et al., Cloning and expression in Escherichia coli, Bacillus subtilis and Streptococcus sanguis of a gene for staphylokinase - a bacterial plasminogen activator, Mol Gen Genet, December 1987, pp. 528-534, Vol. 210			
	87	BESSEN, et al., Chemical characterization of binding properties of opacity-associated protein II from Neisseria gonorrheae, Infection and Immunity, January 1987, pp. 141-147, Vol. 55, No. 1			
	88	BIZIULEVICHIUS, et al., In vivo studies on lysosubtilin: 3. Efficacy for treatment of mastitis and superficial lesions of the udder and teats in cows, 1998, Database Biosis Online, Biosciences Information Service, Philadelphia, PA, US, Database Accession No. PREV199800492606, XP002183274, abstract only			
	89	BOIZET, et al., Cloning, expression and sequence analysis of an endolysin-encoding gene of Lactobacillus bulgaricus bacteriophage mv1, Gene, 2000, pp. 61-67, Vol. 94			
	90	CALDWELL, et al., Purification and partial characterization of the major outer membrane protein of Chlamydia trachomatis, Infection and Immunity, March 1981, pp. 1161-1176, Vol. 31, No. 3			
	91	YOUNG et al. Phages will out: strategies of host cell lysis, Trends in Microbiology, Volume 8 No. 3, March 2000, pp 120-127			
	92	CORBEL, et al., Soluble antigens obtained from influenza virus by treatment with non-ionic detergent, J Hyg.,Camb., 1970, pp. 81-96, Vol. 68			
/	93	CROUX, et al., Interchange of functional domains switches enzymes specificity: construction of a chimeric pneumococcal-clostridial cell wall lytic enzyme, Molecular Microbiology, 1993, pp.1019-25, Vol. 9, No. 5			
V	94	DIAZ, et al., Chimeric phage-bacterial enzymes: a clue to the modular evolution of genes, Proc. Natl. Acad. Sci. USA, October 1990, pp. 8125-8129, Vol. 87			

Examiner Signature	Permit	Date Considered	9-4-07

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08B(10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE to respond to a collection of information unless it contains a valid OMB control number

			100			
Substitute	for form 1449A/PTC	)			Complete if Known	ECE
NIE O	DMATION	DIO	OL OCUPE	Application Number	10/067,995	
	=	_	CLOSURE	Filing Date	2/8/02	JUN 1-2 2003
STAT	EMENT B	Y A	PPLICANT	First Named Inventor	Vincent Fischetti	
				Group Art Unit	1651 TEC	H 0519777 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
(	(use as many she	ets as	necessary)	Examiner Name	PRATS, FRANCISCO CHANDLER	TEUIER 1600/2900
Sheet	7	of	11	Attorney Docket Number		フ

	···	OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	
Examiner Cite		Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
Xel .	95	DIAZ, et al., Chimeric pneumococcal cell wall lytic enzymes reveal important physiological and evolutionary traits, Journal of Biological Chemistry, March 25, 1991, pp. 5464-5471, Vol. 266, No. 9	
	96	DIXON, et al., Lysostaphin: an enzymatic approach to staphylococcal disease. III. Combined lysostaphin- methicillin therapy of established staphylococcal abcesses in mice, The Yale Journal of Biology and Medicine, August 1968, pp. 62-68, Vol. 41, No. 1	
	97	FISCHETTI, et al., Size variation of the M protein in group A streptococci, Journal of Exp. Med., June 1, 1985, pp. 1384-1401, Vol. 161, No. 6	
	98	GARCIA, et al., Bacteriophages of Streptococcus pneumoniae: A molecular approach, Microbial Drug Resistance, Summer 1997, pp. 165-176, Vol. 3, No. 2	
	99	GARCIA, et al., Cloning, purification and biochemical characterization of the pneumococcal bacteriophage Cp-1 lysin, Journal of Virology, August 1987, pp. 2573-2580, Vol. 61, No. 8	
	100	GARCIA, et al., Modular organization of the lytic enzymes of streptococcus pneumoniae and its bacteriophages, Gene, 1990, pp. 81-88, Vol. 86	
	101	GERARDY-SCHANN, et al., Molecular cloning and functional expression of bacteriophage PK1E-encoded endoneuraminidase Endo NE, Molecular Microbiology, May 1995, pp. 441-450, Vol. 16, No. 3	
	102	GOLDBERG, et al., Studies in experimental staphylococcal endocarditis in dogs, Antimicrobial Agents and Chemotherapy, 1967, pp. 45-53	
	103	HARRISON, et al., Lysostaphin in experimental renal infections, Journal of Bacteriology, February 1967, pp. 520-524, Vol. 93, No. 2	
/	104	HARRISON, et al., Therapeutic activity of lysostaphin in experimental staphylococcal infections, Canadian Journal of Microbiology, January 1967, pp. 93-97, Vol. 13, No. 1	
$\overline{V}$	105	HAYASHI, et al., Effects of N-Acetylmuramidase from Streptomyces rutgersensis H-46 as a food preservative, Agric. Biol. Chem., December 1989, pp. 3173-3177, Vol. 53, No. 12	

	<u> </u>		
Examiner Signature	Dellasto	Date Considered	9-4-13

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup> Unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08B(10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Attorney Docket Number

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Complete if Known **Application Number** 10/067,994 Filing Date 2/8/02 First Named Inventor Vincent Fischetti Group Art Unit 1651 TECH CENTER 1,600/2900 PRATS, FRANCISCO CHANDLER **Examiner Name** 

(use as many sheets as necessary) Sheet of

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of Cite T<sup>2</sup> Examiner the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue Initials No. number(s), publisher, city and/or country where published. HAYASHIDA, et al., Further characterization of PL-1 phage associated N-acetylmuramidase of Lactobacillus 106 casei, Journal of General Microbiology, May 1987, pp. 1343-1349, Vol. 133, No. 5 HIGUCHI, et al., Transfection of streptococcus sanguis by phage deoxyribonucleic acid isolated from 107 streptococcus mutans, Infection and Immunity, March 1977, pp. 945-949, Vol. 15, part 3 HUAN, et al., Methicillin-resistant staphylococcus aureus infection and its treatment in burned patients, Chinese 108 Journal of Surgery, 1994, Vol. 32, No. 4, abstract HUGHEY, et al., Antimicrobial activity of lysozome against bacteria involved in food spoilage and food-borne 109 disease, Applied and Environmental Microbiology, September 1987, pp. 2165-2170, Vol. 53, No. 9 KOHLER, Systemic therapy with aerosols Aerosols in Medicine: Principles, Diagnosis and Therapy, 1993, 110 Elseveir Science Publishers, pp. 303-319 LAWMAN, et al., Molecular cloning of the extracellular endodextranase of streptococcus salivarius, Journal of 111 Bacteriology, December 1991, pp. 7423-7428, Vol. 173, No. 23 LOESSNER, et al., Evidence for a holin-like protein gene fully embedded out of frame in the endolysin gene of 112 staphylococcus aureus bacteriophage 187, Journal of Bacteriology, August 1999, pp. 4452-4460, Vol. 181, No. 15 LOESSNER, et al., Modified listeria bacteriophage lysin genes (ply) allow efficient overexpression and one - step purification of biochemically active fusion proteins, Applied and Environmental Microbiology, August 1996, pp. 3057-3060, Vol. 62, No. 8 113 LOPEZ, et al., Architecture and domain interchange of the pneumococcal cell wall lytic enzymes, Genetics of 114 Streptococci, Enterococci and Lactococci, Developments in Biological Standardization, 1995, pp. 273-281, Vol. 85 LOPEZ, et al., The pneumococcal cell wall degrading enzymes a modular design to create new lysins, Microbial 115 Drug Resistance, November 2, 1997, pp. 199-211, Vol. 3, No. 2 MARTIN, et al., Functional analysis of the two-gene lysis system of the pnemococcal phage Cp-1 in homologous 116 and heterologous host cells, Journal of Bacteriology, January 1998, pp. 210-217, Vol. 180, No. 2

Examiner Signature	Blut	Date Considered	9-4-83

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup> Unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

PRATS, FRANCISCO CHANDLER 1600/2900

PTO/SB/08B(10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number Complete if Known **Application Number** 10/067,995 **INFORMATION DISCLOSURE** Filing Date 2/8/02 JUN 12 2003 STATEMENT BY APPLICANT First Named Inventor Vincent Fischetti Group Art Unit

(use as many sheets as necessary) **Examiner Name** Sheet of Attorney Docket Number

		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS			
Examiner Cite		Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			
	117	MUKHLIS, et al., Characterization and Immunogenicity of HSV-1 antigens obtained following zwitteronic detergent treatment; Vaccine, September 1986, pp. 191-196, Vol. 4			
	118	NELSON, et al., Prevention and elimination of upper respiratory colonization of mice by group A streptococci by using a bacteriophage lytic enzyme, PNAS, March 27, 2001, pp. 4107-4112, Vol. 98, No. 7			
	119	NELSON, et al., Selective and rapid killing of group A streptococci using a muralytic enzyme, Database Biosis Online, Biosciences Information Service, Philadelphia, PA, US and abstracts of the General Meeting of the American Society for Microbiology, 2000, pp. 32-33			
	120	OKI, et al., Functional and structural features of the holin HOL protein of the Lactobacillus plantarum phage analysis in escherichia coli system, Gene, 1997, pp. 137-145, Vol. 197			
	121	OKUHARA, et al., Preparation of group A streptococcal cell membranes by treatment with group C streptococcus phage - associated lysin, Annales Paediatrici Japonici, June 1983, pp. 10-19, Vol. 29, No. 2			
	PATTON, et al., Routes of delivery: case studies, Pulmonary delivery of peptides and proteins for systemic action, Advanced Drug Delivery Reviews, 1992, pp. 179-196, Vol. 8				
	123	POLAK, et al., In vitro activity of recombinant lysostaphin-antibiotic combinations toward methicillin-resistant staphylococcus aureus, Diagn. Microbiol. Infect. Dis., 1993, pp. 265-270, Vol. 17			
	124	RAINA, Purification of streptococcus group C bacteriophage lysin, Journal of Bacteriology, January 1981, pp. 661-663, Vol. 145, No. 1			
	125	RONDA, et al., Infection of streptococcus oralis NCTC 11427 by pneomococcal phages, FEMS Microbiology Letters, 1989, pp. 187-192, Vol. 65			
,	126	SANZ, et al., Construction of a multifunctional pneumococcal murein hydrolase by module assembly, Eur. J. Biochem., February 1, 1996, pp. 601-605, Vol. 235, No. 3			
V	127	SATO, et al., Partial characterization of n - Butanol - solubilized rejection - type antigens of syngeneic murine colon tumors, JNCI, April 1985, Vol. 74, No. 4			

Examiner Signature	Drinks	Date Considered	9-4-03
O.g. ata. o		00.10.00.00	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup> Unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08B(10-01)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO Complete if Known **Application Number** 10/067,995 INFORMATION DISCLOSURE Filing Date 2/8/02 STATEMENT BY APPLICANT First Named Inventor Vincent Fischetti 1651 Group Art Unit PRATS, FRANCISCO CHENDLER (use as many sheets as necessary) **Examiner Name** Sheet 10 of Attorney Docket Number

		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	
Examiner	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
fer	128	SHEEHAN, et al., Analysis of the catylytic domain of the lysin of the lactococcal bacteriophage Tuc2009 by chimeric gene assembling, FEMS Microbiology Letters, 1996, pp. 23-28, Vol. 140	
Les .	129	SHEEHAN, et al., The lytic enzyme of the pneumococcal phage Dp-1: A chimeric lysin of intergeneric origin, Molecular Microbiology, 1997, pp. 717-725	
W	130	WITTE, et al., Characterization of escherichia coli lysis using a family of chimeric E-L genes, FEMS Microbiology Letters, 1998, pp. 159-167, Vol. 164	-
Ger	131	YARNALL, et al., Isolation and partial characterization of a type II Fc receptor from a group A streptococcus, Molecular and Cellular Biochemistry, 1986, pp. 57-66, Vol. 70	
Ler	132	CISANI, et al., High-level potentiation of lysostaphin anti-staphylococcal activity by lysozyme, Antimicrobial Agents and Chemotherapy, April 1982, pp. 531-535, Vol.21, No. 4	

Examiner Signature Date Considered 9-4-03	
---	--

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup> Unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08A (10-01) ese through 10/31/2002. OMB 0651-0031 Approved for

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Under the Paperwork Registion Act of 1995

Complete if Known 10/067,995 Application Number 2/8/02 Filing Date Vincent Fischetti First Named Inventor 1651 Group Art Unit PRATS, FRANCISCO CHANDECT CENTER 1600/2800 Examiner Name

1-2 2003

(use as many sheets as necessary)

Sheet Attorney Docket Number

U.S. PATENT DOCUMENTS					
Examiner	Cite	Document Number	Publication Date	Name of Patentee or Applicant of	Pages, Columns, Lines, Where Relevar
	Number - Kind Code <sup>2</sup> (if known)	1414 00 10004	Cited Document	Passages or Relevant Figures Appear	
	133	US-5605793	02/25/97	Stemmer	
1	134	US- 6355477	03/12/02	Fischetti et al	
	135	US- 6331405	12/18/01	Rambukkana et al	
	136	US- 6190659	02/20/01	Pancholi et al	
	137	US- 5985654	11/16/99	Fischetti et al	
	138	US- 5842314	11/24/98	Scott et al	
	139	US- 5910441	06/08/99	Rocha et al	
	140	US- 5786205	07/28/98	Fischetti et al	
	141	US- 5976792	11/02/99	Cheung et al	
	142	US- 5821088	10/13/98	Darzins et al	
	143	US- 5723303	03/03/98	Fischetti et al	
	144	US- 5643767	07/01/97	Fischetti et al	
	145	US- 5707822	01/13/98	Fischetti et al	
	146	US- 5616686	04/01/97	Flschetti et al	
	147	US- 5604109	02/18/97	Fischetti et al	-
	148	US- 5587288	12/24/96	Cheung et al	
1	149	US- 5556944	09/17/96	Fischetti et al	
1	150	US- 5352588	10/04/94	Fischetti et al	
1/	151	US- 5968763	10/19/99	Fischetti et al	
<del>"</del>	152	US- 4784948	11/15/88	Scott et al	

		FOREIGN PA	TENT DOCU	MENTS		
Examiner Cite		Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or	Pages, Columns, Lines,	
		Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> ( <i>if known</i> )		Date	Date Applicant	Applicant of Cited Document
XX	153	WO 03/024410 A2	03/27/03	Fischetti et al		
4 -4						
			•			
				!		
-						

Examiner Signature	D X MISTO	Date Considered	9-4-03

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.